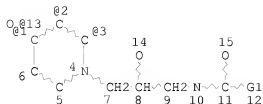


L1 HAS NO ANSWERS  
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NODE ATTRIBUTES:  
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DEFAULT ELEVEL IS LIMITED

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RSPEC 1  
NUMBER OF NODES IS 15

STEREO ATTRIBUTES: NONE

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USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Aug 2009

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reclassification data for the third quarter of 2009.

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L4 2 L3

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L4 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2009 ACS on STN

AN 2003:656742 CAPLUS

DN 139:197375

TI Preparation of piperidinyl alcohols as chemokine receptor modulators for treatment of diseases such as asthma

IN Alcaraz, Lilian; Furber, Mark; Purdie, Mark; Springthorpe, Brian

PA Astrazeneca A.B., Swed.

SO PCT Int. Appl., 166 pp.

CODEN: PIXXD2

DT Patent

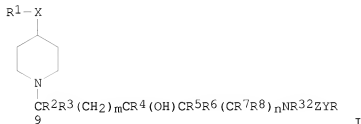
LA English

FAN.CNT 1

|      | PATENT NO.  | KIND | DATE     | APPLICATION NO.  | DATE     |
|------|---|------|----------|------------------|----------|
| PI   | WO 2003068743   | A1   | 20030821 | WO 2003-SE258    | 20030217 |
|      | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW |      |          |                  |          |
|      | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  |      |          |                  |          |
|      | CA 2472822  | A1   | 20030821 | CA 2003-2472822  | 20030217 |
|      | AU 2003206554   | A1   | 20030904 | AU 2003-206554   | 20030217 |
|      | AU 2003206554   | B2   | 20090507 |                  |          |
|      | BR 2003007477   | A    | 20041109 | BR 2003-7477     | 20030217 |
|      | EP 1478624  | A1   | 20041124 | EP 2003-705600   | 20030217 |
|      | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK   |      |          |                  |          |
|      | CN 1633414  | A    | 20050629 | CN 2003-804130   | 20030217 |
|      | CN 100352807  | C    | 20071205 |                  |          |
|      | JP 2005525341   | T    | 20050825 | JP 2003-567874   | 20030217 |
|      | NZ 534296   | A    | 20060127 | NZ 2003-534296   | 20030217 |
|      | NZ 541682   | A    | 20060526 | NZ 2003-541682   | 20030217 |
|      | CN 1907968  | A    | 20070207 | CN 2006-10110091 | 20030217 |
|      | RU 2330019  | C2   | 20080727 | RU 2004-122114   | 20030217 |
|      | SG 149695   | A1   | 20090227 | SG 2006-5606     | 20030217 |
|      | IN 2004DN02041  | A    | 20050401 | IN 2004-DN2041   | 20040715 |
|      | MX 2004007906   | A    | 20041015 | MX 2004-7906     | 20040813 |
|      | ZA 2004006509   | A    | 20050915 | ZA 2004-6509     | 20040816 |
|      | US 20050107428  | A1   | 20050519 | US 2004-504936   | 20040817 |
|      | NO 2004003899   | A    | 20041117 | NO 2004-3899     | 20040917 |
|      | IN 2007DN09369  | A    | 20080215 | IN 2007-DN9369   | 20071205 |
| PRAI | SE 2002-465   | A    | 20020218 |                  |          |

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|----------------|----|----------|
| SE 2002-2673   | A  | 20020909 |
| CN 2003-804130 | A3 | 20030217 |
| NZ 2003-534296 | A1 | 20030217 |
| WO 2003-SE258  | W  | 20030217 |
| IN 2004-DN2041 | A3 | 20040715 |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT  
 OS CASREACT 139:197375; MARPAT 139:197375  
 GI



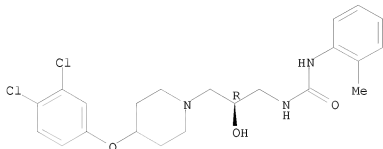
- AB The invention provides piperidinyl alcs. (shown as I; variables defined below; e.g. N-[(2R)-3-[4-(3,4-dichlorophenoxy)piperidin-1-yl]-2-hydroxypropyl]-2-(methylsulfonyl)benzamide) for use as modulators of chemokine receptor (especially CCR3) activity for use in, for example, treating asthma. For I: X is CH<sub>2</sub>, O, S(O)<sub>2</sub> or NR<sub>10</sub>; Y is a bond, CH<sub>2</sub>, NR<sub>35</sub>, CH<sub>2</sub>NH, CH<sub>2</sub>NHC(O), CH(OH), CH(NHCOR<sub>33</sub>), CH(NHSO<sub>2</sub>R<sub>34</sub>), CH<sub>2</sub>O or CH<sub>2</sub>S; Z is C(O), or when Y is a bond Z can also be S(O)<sub>2</sub>; R<sub>1</sub> is (un)substituted aryl, (un)substituted heterocyclyl or C<sub>4</sub>-6 cycloalkyl fused to a benzene ring; addnl. details are given in the claims. Percent inhibition at 3 nM eotaxin of eotaxin-mediated human eosinophil chemotaxis is tabulated for 16 examples of I, e.g. 106 % for N-[(2R)-3-[4-(3,4-dichlorophenoxy)piperidin-1-yl]-2-hydroxypropyl]-1-oxo-1,2-dihydroisoquinoline-4-carboxamide. Histamine H<sub>1</sub> receptor binding activity was determined for the same compds., e.g. pK<sub>i</sub> = 8.4 for N-[(2R)-3-[4-(3,4-dichlorophenoxy)piperidin-1-yl]-2-hydroxypropyl]-1-oxo-1,2-dihydroisoquinoline-4-carboxamide. 49 Example preps. of intermediates and 234 of I are included. For example, to prepare N-[(2R)-3-[4-(3,4-Dichlorophenoxy)piperidin-1-yl]-2-hydroxypropyl]-2-(methylsulfonyl)benzamide (0.055 g), a mixture of 2-(methylsulfonyl)benzoic acid (0.063 g), (2R)-1-amino-3-[4-(3,4-dichlorophenoxy)piperidin-1-yl]propan-2-ol (0.1 g) and N,N-diisopropylethylamine (0.1 mL) in dry DMF (3 mL) was cooled to 0° with stirring; 2-(1H-9-azabenzotriazol-1-yl)-1,1,3,3-tetramethyluronium hexafluorophosphate (0.13 g) was added and the mixture was stirred at 0° for 1-2 h. The invention also provides a process for making 4-(3,4-dichlorophenoxy)piperidine, which is useful as an intermediate for making certain compds. of the invention. The process comprises (a) reacting 4-hydroxypiperidine with a suitable base in a suitable solvent at room temperature; and (b) heating the mixture so produced and 1,2-dichloro-4-fluorobenzene at 50-90°, or at reflux of the solvent used.
- IT 583882-31-9P, 1-[(R)-3-[4-(3,4-Dichlorophenoxy)piperidin-1-yl]-2-hydroxypropyl]-3-o-tolylurea 583882-32-0P, 1-[(R)-3-[4-(3,4-Dichlorophenoxy)piperidin-1-yl]-2-hydroxypropyl]-3-p-tolylurea  
 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (drug candidate; preparation of piperidinyl alcs. as chemokine receptor

modulators for treatment of diseases such as asthma)

RN 583882-31-9 CAPLUS

CN Urea, N-[(2R)-3-[4-(3,4-dichlorophenoxy)-1-piperidinyl]-2-hydroxypropyl]-N'-(2-methylphenyl)- (CA INDEX NAME)

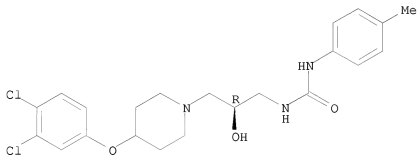
Absolute stereochemistry.



RN 583882-32-0 CAPLUS

CN Urea, N-[(2R)-3-[4-(3,4-dichlorophenoxy)-1-piperidinyl]-2-hydroxypropyl]-N'-(4-methylphenyl)- (CA INDEX NAME)

Absolute stereochemistry.



OSC.G 12 THERE ARE 12 CAPLUS RECORDS THAT CITE THIS RECORD (12 CITINGS)

RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2009 ACS on SIN

AN 2003:173585 CAPLUS

DN 138:221471

TI Preparation of piperidine derivatives as modulators of chemokine receptor activity

IN Evans, Richard; Perry, Matthew; Springthorpe, Brian

PA AstraZeneca AB, Swed.

SO PCT Int. Appl., 54 pp.

CODEN: PIXXD2

DT Patent

LA English

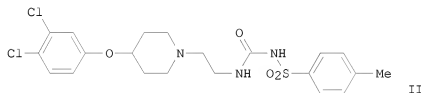
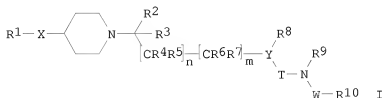
FAN.CNT 1

|    | PATENT NO.    | KIND  | DATE     | APPLICATION NO. | DATE     |
|----|---------------|---|----------|-----------------|----------|
| PI | WO 2003018556 | A1  | 20030306 | WO 2002-SE1401  | 20020719 |
|    | W:            | AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, |          |                 |          |

LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,  
 PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,  
 UA, UG, US, UZ, VN, YU, ZA, ZM, ZW  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,  
 CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,  
 PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,  
 NE, SN, TD, TG

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|--|----|----------|----------------|----------|
| AU 2002321969  | A1 | 20030310 | AU 2002-321969 | 20020719 |
| EP 1412330   | A1 | 20040428 | EP 2002-756046 | 20020719 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,<br>IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK |    |          |                |          |
| JP 2005503394  | T  | 20050203 | JP 2003-523220 | 20020719 |
| US 20040176411   | A1 | 20040909 | US 2004-483138 | 20040108 |
| US 7265227   | B2 | 20070904 |                |          |
| PRAI GB 2001-17899   | A  | 20010723 |                |          |
| WO 2002-SE1401   | W  | 20020719 |                |          |

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT  
 OS CASREACT 138:221471; MARPAT 138:221471  
 GI



AB The title compds. [I; T = CO, SO<sub>2</sub>; W = CO, SO<sub>2</sub>; X = CH<sub>2</sub>, O, NH; Y = CR<sub>11</sub>, N; n = 0-2; m = 1 or, when Y = CR<sub>11</sub>, m = 0; R<sub>1</sub> = (un)substituted aryl, heterocyclyl; R<sub>2</sub>-R<sub>8</sub> = H, alkyl optionally substituted by OH; R<sub>9</sub> = H, alkyl; R<sub>10</sub> = alkyl, (un)substituted aryl, aralkyl, heterocyclyl; R<sub>11</sub> = H, alkyl] which are modulators of chemokine (especially CCR3) activity and are especially

useful for treating asthma and/or rhinitis, were prepared and formulated. Thus, reacting 4-(3,4-dichlorophenoxy)-1-piperidineethanamine (preparation given) with 4-methylbenzenesulfonyl isocyanate in CH<sub>2</sub>Cl<sub>2</sub> afforded II which was found to be an antagonist of the eotaxin mediated human eosinophil chemotaxis in calcium flux [Ca<sup>2+</sup>]<sub>i</sub> assay, and H1 antagonist when tested in Guinea-pig isolated trachea.

IT 500859-22-3P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

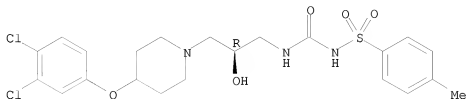
(preparation of piperidine derivs. as modulators of chemokine receptor activity)

RN 500859-22-3 CAPLUS

CN Benzenesulfonamide, N-[[[(2R)-3-[4-(3,4-dichlorophenoxy)-1-piperidinyl]-2-

hydroxypropyl]amino]carbonyl]-4-methyl- (CA INDEX NAME)

Absolute stereochemistry.



OSC.G 3  
RE.CNT 7

THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)  
THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT